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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,287	08/23/2006	Martin Oberscheidt	095309.56861US	1545

23911 7590 11/19/2008
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EXAMINER

MCGRAW, TREVOR EDWIN

ART UNIT	PAPER NUMBER
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3752

MAIL DATE	DELIVERY MODE
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11/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,287	Applicant(s) OBERSCHIEDT ET AL.	
	Examiner Trevor E. McGraw	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/27/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “flank angle” and “included angle” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

Art Unit: 3752

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to Claim 14, Examiner cannot determine which claimed feature (i.e. the nozzle seat or bore bottom) Applicant is reciting when stating "wherein the cross-

Art Unit: 3752

sectional areas are circular arc segments...." in view of Claim 13. Appropriate correction and clarification are required.

Claim 15 recites the limitation "on a high pressure side" in line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner suggests making proper reference to the limitations "on a high pressure side" previous to the recitation in the preceding claims for which claim 15 is dependent upon to ensure proper antecedence is maintained throughout the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-15 and 17-19 are, rejected under 35 U.S.C. 102(e) as being anticipated by Miyauchi (US 20060043110).

In regard to Claim 9, Miyauchi teaches a spray head for high pressure jet applications having a nozzle carrier (2) and at least one exchangeable nozzle (3b)

Art Unit: 3752

disposed in a bore of the nozzle carrier (2) and sealed along an annular surface against the wall of the bore (2c), wherein the bore (2c), at a bore bottom (2d) against which the exchangeable nozzle (3b) directly bears, is conically configured wherein the exchangeable nozzle (3b), at a nozzle seat (see seat in Figure 2B) is in the region of the bore bottom is likewise conically configured, and where in an installed, functional state, the nozzle seat along the annular surface, bears directly and in a sealing manner against the bore bottom (2d).

In regard to Claims 10-12, Miyauchi also teaches where the bore bottom (2d) has an included angle greater than a corresponding flank angle of the nozzle seat where the flank angle differs from the included angle by no more than about 5 degrees wherein the flank angle of the nozzle seat measures about 58 degrees and the included angle of the bore bottom measures about 60 degrees (See Figures 3A, 3B and 3C).

In regard to Claims 13- 15, Miyauchi further teaches where for positional locking of the exchangeable nozzle (3b) in the nozzle carrier (2), the cross-sectional area of the nozzle seat has a shape that corresponds to a shape of the cross-sectional area of the bore bottom, and where the cross-sectional areas are non-circular (See cross section of "3b" in Figure 2A) and the cross-sectional areas are circular arc segments spaced apart in parallel and the positional locking is effected on a high pressure side (see Figures 3A, 3B and 3C for positional locking).

In regard to Claims 17-19, Miyauchi additionally teaches where the flank angle differs from the included angle by no more than 1 degree and 3 degrees and also the annular surface defines an annular line.

Art Unit: 3752

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Levine (US 4,718,607).

In regard to Claim 9, Levine teaches a spray head for high pressure jet applications having a nozzle carrier (34) and at least one exchangeable nozzle (32) disposed in a bore of the nozzle carrier (34) and sealed along an annular surface against the wall of the bore (bore of "34"), wherein the bore, at a bore bottom against which the exchangeable nozzle (32) directly bears, is conically configured wherein the exchangeable nozzle (32), at a nozzle seat (see where components seat in Figures 3, 4 and 6) is in the region of the bore bottom is likewise conically configured, and where in an installed, functional state, the nozzle seat along the annular surface, bears directly and in a sealing manner against the bore bottom (see arrangement in Figures 3, 4 and 6).

In regard to Claim 16, Levine further teaches where the exchangeable nozzle (32) is held in the installed state in the bore (bore of "34") by an external holding screw (36), where the holding screw (36) is screwed into the bore of the nozzle carrier (34), wherein the holding screw (36), at a screw bottom against which the exchangeable nozzle (32) directly bears, is conically configured, and wherein the exchangeable nozzle (32), in a screw seat of the screw bottom, is likewise of correspondingly conical configuration (see exploded view of Figure 4).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ikeuchi et al (US 5,046,668), Kaneko et al (US 5,249,746), Kassanits (US 20050127212), Tores (US 6,296,198).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. E. M./
Examiner, Art Unit 3752
/Len Tran/
Supervisory Patent Examiner, Art Unit 3752